50%, wherein said oil is produced by culturing a producer microorganism in a fermentor with aeration.

14. (Three Times Amended) An arachidonic acid-containing oil comprising a 24,25-methylenecholest-5-en-3 β -ol compositional ratio of 35% or lower, a 24,25-methylenecholest-5-en-3 β -ol compositional ratio in a proportion of 1.2 or less with respect to the desmosterol compositional ratio, and an arachidonic acid content of 30 to 50%, wherein said oil is produced by culturing a producer microorganism in a fermentor with aeration.

30. (Amended) An immature infant formula, infant formula, baby food or pregnancy food product comprising a nutritive dietary supplement according to claim 29.

32. (Twice Amended) An arachidonic acid-containing oil comprising a 24,25-methylenecholest-5-en-3β-ol compositional ratio of 35% or lower, and an arachidonic acid content of 30 to 50%, wherein said oil is produced by culturing a producer microorganism in a fermentor with aeration.

Please add new claims 37-50 as follows:

(New) A nutritive dietary supplement comprising at least one arachidonic acid-containing oil selected from the group consisting of:

an arachidonic acid-containing oil having a 24,25-methylenecholest-5-en-3 β -ol compositional ratio in a proportion of 1.2 or less with respect to the desmosterol compositional ratio and an arachidonic acid content of 30 to 50%; and

an arachidonic acid-containing oil having a 24,25-methylenecholest-5-en-3 β -ol compositional ratio of 35% or lower, a 24,25-methylenecholest-5-en-3 β -ol compositional ratio in a proportion of 1.2 or less with respect to the desmosterol compositional ratio, and an arachidonic acid content of 30 to 50%,

wherein said oil is produced by culturing a producer microorganism in a fermentor with aeration.

(New) The arachidonic acid-containing oil as recited in claim 13, wherein said producer microorganism is cultured in a fermentor with aeration in a medium containing soybean protein as a nitrogen source.

39. (New) The arachidonic acid-containing oil as recited in claim 14, wherein said producer microorganism is cultured in a fermentor with aeration in a medium containing soybean protein as a nitrogen source.

(New) The arachidonic acid-containing oil as recited in claim 32, wherein said producer microorganism is cultured in a fermentor with aeration in a medium containing soybean protein as a nitrogen source.

(New) The nutritive dietary supplement as recited in claim 37, wherein said producer microorganism is cultured in a fermentor with aeration in a medium containing soybean protein as a nitrogen source.

(New) An arachidonic acid-containing oil produced by a process of culturing with aeration a microorganism belonging to the genus *Mortierella* subgenus *Mortierella* in a liquid medium containing a nitrogen source derived from soybean in a fermentor under conditions effective to produce an oil having a 24,25-methylenecholest-5-en-3β-ol compositional ratio in a proportion of 1.2 or less with respect to the desmosterol compositional ratio, and an arachidonic acid content of 30 to 50%.

(New) An arachidonic acid-containing oil produced by a process of culturing with aeration a microorganism belonging to the genus *Mortierella* subgenus *Mortierella* in a liquid medium containing a nitrogen source derived from soybean in a fermentor under conditions effective to produce an oil having a 24,25-methylenecholest-5-en-3β-ol compositional ratio of 35% or lower, a 24,25-methylenecholest-5-en-3β-ol compositional

ratio in a proportion of 1.2 or less with respect to the desmosterol compositional ratio, and an arachidonic acid content of 30 to 50%.

(New) An arachidonic acid-containing oil produced by a process of culturing with aeration a microorganism belonging to the genus *Mortierella* subgenus *Mortierella* in a liquid medium containing a nitrogen source derived from soybean in a fermentor under conditions effective to produce an oil having a 24,25-methylenecholest-5-en-3 β -ol compositional ratio of 35% or lower, and an arachidonic acid content of 30 to 50%.

(New) The arachidonic acid-containing oil as recited in claim 42, wherein said nitrogen source has a nitrogen content of at least 2 wt% with respect to the total components except for water.

(New) The arachidonic acid-containing oil as recited in claim 43, wherein said nitrogen source has a nitrogen content of at least 2 wt% with respect to the total components except for water.

(New) The arachidonic acid-containing oil as recited in claim 44, wherein said nitrogen source has a nitrogen content of at least 2 wt% with respect to the total components except for water.

(New) A nutritive dietary supplement comprising the arachidonic acidcontaining oil as recited in claim A2.

(New) A nutritive dietary supplement comprising the arachidonic acidcontaining oil as recited in claim 43.

(New) A nutritive dietary supplement comprising the arachidonic acid-